Comptabilités
Revue d'histoire des comptabilités

8 | 2016
Archéologie de la comptabilité. Culture matérielle des pratiques comptables au Proche-Orient ancien

Archives and Bookkeeping in Southern Mesopotamia during the Ur III period

Archéologie de la comptabilité. Culture matérielle des pratiques comptables au Proche-Orient ancien

Archives et comptabilité dans le Sud mésopotamien pendant la période d'Ur III

Archive und Rechnungswesen im Süden Mesopotamiens im Zeitalter von Ur III

Archivos y contabilidad en el Periodo de Ur III (2110-2003 a.C.)

Manuel Molina

Electronic version
URL: http://journals.openedition.org/comptabilites/1980
ISSN: 1775-3554

Publisher
IRHiS-UMR 8529

Electronic reference
Manuel Molina, « Archives and Bookkeeping in Southern Mesopotamia during the Ur III period », *Comptabilités* [Online], 8 | 2016, Online since 20 June 2016, connection on 19 April 2019. URL : http://journals.openedition.org/comptabilites/1980

Archives and Bookkeeping in Southern Mesopotamia during the Ur III period*

Archéologie de la comptabilité. Culture matérielle des pratiques comptables au Proche-Orient ancien

Archives et comptabilité dans le Sud mésopotamien pendant la période d'Ur III
Archive und Rechnungswesen im Süden Mesopotamiens im Zeitalter von Ur III
Archivos y contabilidad en el Periodo de Ur III (2110-2003 a.C.)

Manuel Molina

1 By the end of the 22nd century BC, king Ur-Namma inaugurated in Southern Mesopotamia the so-called Third Dynasty of Ur (2110-2003 BC). In this period, a large, well structured and organized state was built up, to such an extent that it has been considered by many a true empire. Its architect was Šulgi, who reorganized the administration of the state, introduced a new tax system, and launched an ambitious policy of territorial expansion. The consequence was the production of an enormous mass of written documentation, unearthed from private and official archives found in Sumerian cities, that makes this century the best documented in the history of ancient Mesopotamia.

2 Most of these texts were legally or illegally excavated during the last decade of the 19th century and the first half of the 20th century, while many others were found and sold by looters during the aftermath of the I and II Gulf Wars in 1991 and 2003. It is estimated that some 120,000 administrative cuneiform tablets, plus an indeterminate number of other documents stored in the Iraq Museum, are currently kept in collections all over the world[1]. Some 96,000 of them are catalogued in BDTNS[2]: 64,500 have been published in handcopy, photo, transliteration and/or translation; 16,500 have been published only through their cataloguing data; and 15,000 remain unpublished (including images of « unpublished unassigned » tablets in CDLI).

3 This material constitutes the largest corpus of cuneiform texts for any period in the history of ancient Mesopotamia. Unfortunately, the immense majority of them were not excavated legitimately, so that essential information conveyed by their archaeological context has been lost forever. On the other hand, by their actions, looters and dealers have provoked the dispersion of the corpus in hundreds of small and large collections, which complicates the identification of the provenance of the tablets and the reconstruction of their archival relationships. Taken globally, Ur III texts can be found today in at least 758 collections in 40 different countries. Considered individually, the dispersion of some of the archives is also striking: the provincial archive of Girsu, which was in part officially excavated, is split up into at least 214 different collections; the archives of Umma and Puzriš-Dagān, which on the contrary were never excavated by archaeologists, except for a few recent campaigns (see below), are dispersed in at least 483 and 411 different collections respectively. Other cases showing different distribution depending on the circumstances of the acquisition of the documents, are those of GAR šana and Irisaĝrig, sites with a similar corpus of preserved documents which are dispersed in at least 21 and 52 collections respectively. In general, today cuneiform texts from almost every site are still being sold and resold in galleries and auction houses.

4 These written documents are for the most part cuneiform tablets. Their size and length are variable, from texts of one or two lines, to others much longer, as for example MVN 15, 390, the longest Ur III text known at present, with 1,663 lines. Most common Ur III tablets have 5-15 lines and are 5-4 cm long/wide, although there are of course hundreds of much longer documents.

5 Many of them, about one third of the administrative documents, were sealed. The seal impression was the result of rolling a cylinder seal over the surface of the tablet. With it, the owner of the seal acknowledged the contents of the document. Sealing was thus typically made on receipts, which are today preserved in large quantities as testimonies of transactions made within public institutions, but also in other kinds of documents that will be described below. Seals were also impressed on envelopes (of which more than 3,000 are currently preserved) that sometimes wrapped the tablets, which in turn were usually ruled and unsealed. As most of the envelopes had been broken in antiquity (and also in modern times by dealers[3]), it is difficult to ascertain how many of the preserved unsealed tablets could actually have been sealed in their envelopes, except for some tablets with breaks on the corner that suggest they were encased[4]. Therefore, lost envelopes and the lack of systematic studies for a large part of Ur III documents eventually make it difficult to understand why a text was or was not sealed, beyond the obvious fact that for example inventories or other kinds of list did not need to be sealed.

Fig. 1: BM 12920+A

TABLET AND ENVELOPE FROM GIRSU, UNPUBLISHED, BDTNS 052089

6 The way tablets were classified and archived has been studied for certain groups of texts. The role played here by the so-called labels, or *pisaĝduba*-texts, is essential. These were tablets with holes through which cords passed to attach them to a container (p i s a ĝ – d u b – b a «tablet-container»). They summarized the contents of the tablets kept in the container, and also recorded the periods of time to which those tablets were related. The fact that those periods could be of one or more years indicates that the containers were periodically revised and reorganized, denoting the existence of long-term archival procedures that are discussed below.

Fig. 2 : BM 110745

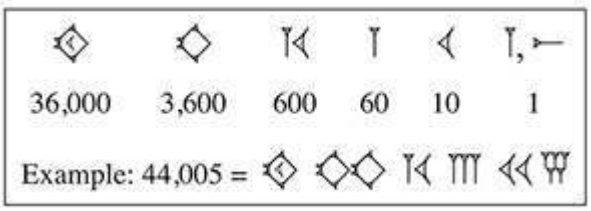
Label, or pisaĝduba-text, from Umma, unpublished, BDTNS 069634

7 The vast majority of Ur III tablets were written in the Sumerian language. Only about one hundred texts, virtually all of them from Northern and Middle Babylonia, were written in Akkadian. In accordance with a predominantly Sumerian-speaking population[5], Sumerian was in fact the sole language used in administration in Southern Mesopotamia during the Ur III period, including the state archives of Puzriš-Dagān. Akkadian could be sporadically preferred in the area of Nippur (for example in Irisaĝrig) and further north when writing letters, sale and loan documents, or other kinds of legal text.

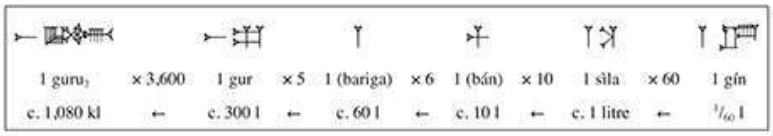
8 Not unexpectedly, in a large corpus composed of documents from several different places and environments, terminology, lexicon and formulas are very rich and diverse. Short receipts or asyntactic lists coexist with complex legal documents, letters or long balanced accounts. In general, a simple administrative text does not follow the usual Sumerian syntax. Instead, it records[6] first the reason why the text was written –which syntactically would correspond to the absolutive in a Sumerian sentence– typically transferred countable objects or units (people, animals, objects, commodities, workdays...), with numerals and measures written before the count noun. A more detailed description of the count noun or an explanation on its provenance, destination or the purpose of the transfer could follow, now using other noun phrases, finite and non-finite clauses, or adverbial clauses. Thus, the deliverer, one of the participants in the transfer, was usually expressed through the idiom k i Personal Name – t a «from PN». Other participants were the receiver (eventually marked with the ergative case), and different types of overseers, conveyors or authoritative persons (u g u l a, ĝ i r i $_3$, m a š k i m, etc.). The date, which in its most complete form included the day, the month and the year name, could close the text. Some examples of different types of text will be presented below.

9 In all Ur III administrative texts, numbers and measures obviously play a fundamental role. Already in his law collection[7], king Ur-Namma boasted about the introduction of a fair metrology, which largely followed Sargonic traditions. And in fact weights and measures were consistently used with the same standards in virtually all the Ur III texts[8], although based on different usages of computation[9].

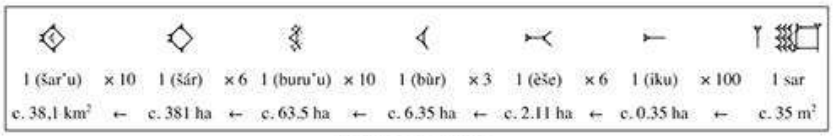
10 Measuring and counting followed the so-called «sexagesimal system», which had its roots in the archaic period. It was based on a sexagesimal structure and an additive principle, and consisted of series of numerals alternating the factors ten and six. The different orders of magnitude were indicated by the shape of the signs or by special words[10]. Thus, countable objects were noted through the following sequence:



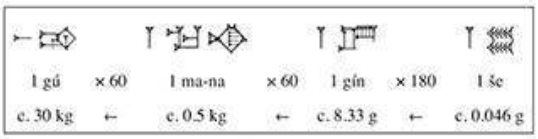
11 Other measure systems combined specific words and different shapes of sign. In these cases, either the sign was replicated, or the sequence for countable objects was followed (particularly for g í n, s ì l a, g u r, s a r, weight and length measures), until the higher measurement unit was reached:



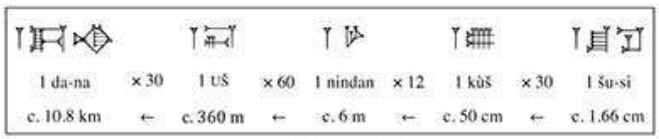
Capacity measures



Surface measures



Weight measures



Length measures

12 A distinctive feature of Ur III administrative practice was the regular dating of tablets through a system that combined local and state calendars. In the preceding periods, months were named according to local calendars, an usage that continued with the Third Dynasty of Ur, although now the calendar in use at Ur was also followed in other archives managed by or bound to the royal administration, such as those of Puzriš-Dagān and GAR šana[11]. But the real difference with former periods was the acceptance of a common dating system with year-names throughout the Ur III state. Years were thus called after the same remarkable event in all royal, provincial, local and private administrations. This procedure had already been applied during the Sargonic period[12], but its use was then much more limited. The dissemination of such a dating system over a vast area during the Ur III period is important for various reasons:

a) It reveals the duration and range of influence of the Ur III state, both in administrative and political terms. Note, for example, that a text found at Tell Brusti, close to Tell Shemshāra, at a distance of almost 600 km from Ur as the crow flies, was dated with a year-name of Ibbi-Suen, the fifth and last king of the dynasty[13]. It is also assumed that the last dated tablets with official state year-names in a given city mark the end of its political dependence from the Ur III state organization. Thus, dated texts from the state archives of Puzriš-Dagān belong to Ibbi-Suen's third regnal year (IS 3); the last texts from GARšana and Irisaĝrig (also royal settlements) are dated to IS 4; and shortly after, the archives of Umma and Girsu (IS 5), and Nippur (IS 7 or IS 8), separated from the state organization. Logically, the capital of the state, Ur, was the place where the archives remained longest in use: the final dated texts belong to IS 23.

b) The names of the years recalled important events related to the territorial policy of the Ur III kings (military expeditions against this or that city, etc.), the political life (coronation of kings), the state internal organization (foundation of the Puzriš-Dagān complex, recruiting of an army), religious events (appointing priests), or building works (erection of the Šara temple, the wall against the Amorites, etc.). These designations

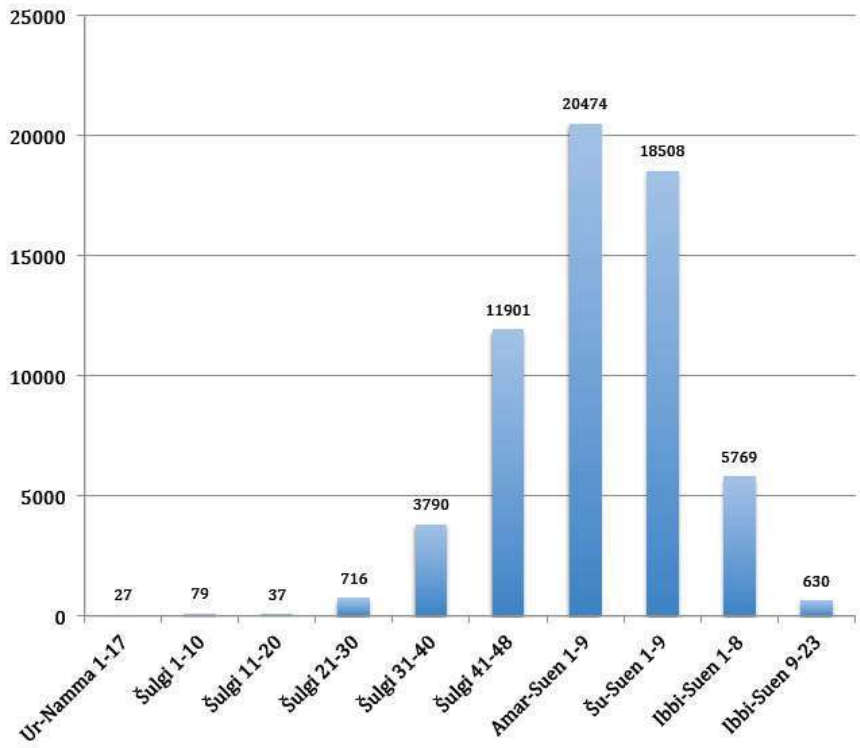
obviously belong to the sphere of the royal propaganda, but provide interesting information that can be contrasted with other sources.
c) Texts dated with year-names allow the establishment of an internal chronology of tablets, the reconstruction of their archival relationships and, consequently, diachronic and synchronic studies on economy, religion, administration, or the political history of the Ur III state.

Fig. 3: BM 110975

Balanced account of a shepherd recording year-names from Šu-Suen 1 to Šu-Suen 5, unpublished, BDTNS 069861

13 The Ur III Dynasty ruled during some one hundred years, but the cuneiform tablets so far preserved are unevenly distributed within this span of time. An administrative reorganization took place by the middle of Šulgi's reign, the second monarch of the dynasty, and in his 39th regnal year, the Puzriš-Dagān complex was founded. These were significant changes that boosted the production of administrative tablets, to an extent that 90% of them are concentrated between the final years of Šulgi's reign and the eighth regnal year of Ibbi-Suen, i.e. in about one third of the whole duration of the dynasty.

Fig. 4: Chronological distribution of Ur III texts



14 A characteristic feature of year-names in their abbreviated form is that they can be ambiguous, i.e. they can potentially designate two (or even more) different years. Thus, for example, the 45th year of Šulgi (Š 45) and the 2nd year of Amar-Suen (AS 2), respectively named mu ^{d}Šul-gi Ur-bí-lum^{ki} Lu-lu-bu^{ki} Si-mu-ru-um^{ki} ù Kára-har^{ki} 1-šè saĝ-bi šu-búr-ra ì-ra («Year in which Šulgi smashed the heads of Urbilum, Lullubum, Simurrum and Karhar in a single campaign») and mu ^{d}Amard-Suen Ur-bí-lum^{ki} mu-hul («Year in which Amar-Suen destroyed Urbilum»), were abbreviated as mu Ur-bí-lum^{ki} ba-hul («Year in which Urbilum was destroyed»). This ambiguity could be taken as an argument against the archival coexistence of tablets bearing these year-names, but it is probable that they are only ambiguous to modern scholars, not to ancient archivists, a fact that is being shown by close analysis of at least some text groups. It is thus now clear, for example, that only certain archives used certain abbreviated forms of year-names, which did not conflict with the same form known today for a different year[14].

15 But not all the texts were dated by year: that depended on the scope of the archives to which they belonged. For example, most of the « messenger texts » from Girsu were not dated with year-names, thus suggesting that they were not intended to be kept through the years, or at least that they were not periodically reorganized in containers with other texts dated to different years. Likewise, letter-orders were rarely dated, which speaks in favour of their immediacy and of the different conditions of archive keeping in antiquity.

16 The identification and the life of the archives is thus an important issue that is being slowly disentangled, given the mass of documentation and the almost inexistent information about its provenance. These constraints have frequently brought confusion about what is intended by «archive». Sallaberger's description is in our view a good starting-point: «Als 'Archiv' bezeichnen wir hier die aus einer Institution stammenden

Texte, ohne daß wir damit sagen konnten, sie seien in der Antike unbedingt an einem Ort aufbewahrt worden. Ein ‘Archiv’ ist aber nicht eine um einen Personennamen oder ein Thema zusammengestellte Textgruppe oder Dossier»[15].

17 As it will be seen below, a large number of Ur III tablets can be classified in large and coherent groups not only on the basis of their contents, but also of their archival relationships. This means that they once belonged to a closed and well organized archive, comprising documents selected for long-term preservation. Whether or not the documents were considered as living archives is a different question, largely depending on their identification and the circumstances of the finding.

18 At present, 27 sites have been identified as the provenance of Ur III administrative texts (in brackets: the number of the texts ascribed to that provenance considered as doubtful) [16]: Adab (Tell Bismaya): 116 texts (16); Awal (Tell al-SulaimaḪ): 3; E-Šu-Suen (Aradĝu archive, Tell Abū-Juwan?, close to Nippur): 215 (4); Ešnunna (Tell Asmar): 156; GARšana (east of Umma province): 1,507 (20); Gasur (Jorgan Tepe): 1; Girsu (Tellō): 26,619 (692); Irisaĝrig (Adams 1056?, close to Nippur): 1148 (50); Isin (Išān Baḥrīyāt): 4; Kiš (Tell Uḥaimir): 6; Kisurra (Tell Abū Ḥaṭab): 4; Lagaš (Tell al-Ḥiba): 2; Mari (Tell Ḥarīrī): 8 (2); Nippur (Tell Nuffar): 3,697 (35); Puzriš-Dagān (Tell Drēhim): 15,647 (125); SI.A-a archive (uncertain prov.): 80; Sippar (Tell Abū Ḥabba): 3; Sippar-Amnānum (Tell ed-Dēr): 1; Šuruppag (Tell Fāra): 3; Susa (Šūš): 75; Tell al-WilayaḪ (ancient Dabrum?): 18; Tell Brusti (close to Shemshāra): 1; Tell Išān Mizyad: 50; Tūram-ilī archive (from Irisaĝrig?): 59; Umma (Tell ĞoḪa): 29,940 (360); Ur (Tell Muqejjir): 4,297 (20); Uruk (Warka): 21 (2).

19 Most of these sites have been officially excavated at one time or another, but when large groups of tablets have been found, this has generally been the result of looting, except for Ur and Nippur, and partly Girsu. Unfortunately, even in these cases no significant information about the way the tablets were archived could be obtained.

20 Ur (Tell Muqejjir) was regularly excavated by Leonard Woolley, from 1922 to 1934, but texts dated to the years of the Third Dynasty of Ur were found in secondary context, i.e. used as filling under the floors[17].

21 Ur III texts from Nippur (Tell Nuffar) were excavated by the end of the 19th century and the middle of the 20th, although several texts from illegal excavations can also be found in museums and private collections. Texts excavated in this site did not come, in any case, from large institutions such as those to which the royal or provincial archives of Puzriš-Dagān, Girsu or Umma belonged. Instead, the tablets from Nippur belonged to minor institutions or private archives that were organized in a simpler way. The most remarkable group of texts from this site belongs to the administrative archive of the Inanna temple: 1,163 Ur III administrative tablets and/or fragments were found there, but once again the bulk of them, more than 900, were found in secondary contexts, used as fill in a foundation platform during the Parthian period[18]. From their contents, chronological distribution, and the scarce numbers of tags found, it seems that the process of discarding tablets after their incorporation into large summary accounts was more pronounced than in other provincial and royal archives. On the other hand, several clay sealings found in a bin in Locus 1 and in the trash pit in the back courtyard (Locus 137), had been broken off jars, bags and boxes, or had secured doors, most probably those belonging to Locus 2 and 4[19]. This possibly exemplifies the circumstances of the finding of other bullae and clay sealings from other sites.

22 In 1894, Ernest de Sarzec excavated at Girsu (Tellō), the capital of the largest and richest province of the Ur III state, an enormous archive of some 30,000 cuneiform tablets, later identified with the provincial archive. Unfortunately, looters discovered the findspot shortly before De Sarzec's excavation and sold thousands of tablets, mainly dated to the years between Šulgi 44 and Amar-Suen 5, to museums and private collectors[20]. Besides, the archaeological methods of that time were not refined enough and, despite the fact that tablets were found stored on clay benches, their position and organization were not recorded.

23 The fate of the archives from Umma (Tell Ǧoḫa) and Puzriš-Dagān (Tell Drēhim) was much worse. These sites were intensively plundered since 1908/09 (Puzriš-Dagān) and 1911 (Umma). At Tell Drēhim, looters despoiled those known today as the « Shoe-archive » and the «Treasure archive»[21], and notably the huge royal archive for cattle management, while the governor's archive was extensively looted at Tell Ǧoḫa. The circumstances surrounding the Gulf Wars in 1991 and 2003 boosted new illicit diggings in these two sites, so that excavations were undertaken by the State Board of Antiquities and Heritage in Iraq with the aim of protecting them. These works unearthed the sole (and scarce) cuneiform documents from Umma and Puzriš-Dagān discovered after official excavations[22]. Other cuneiform texts from these two sites were possibly found in the course of illicit excavations and are being sold in the antiquities market, but it is not easy to distinguish them from other texts coming from earlier looting.

24 The looting in the areas where the sites of Puzriš-Dagān and Umma lay were also heavily plundered, and huge quantities of tablets dated to the time of the Third Dynasty of Ur were thus found[23]. Within the Umma province, the case of GARšana is well known. In this royal town, whose exact location remains unknown[24], or in its surrounding area, an archive of more than 1,500 tablets from the household of princess Simat-Ištaran and her husband Šu-Kabta was discovered and sold by looters[25]. To this area also belongs a small group of texts apparently from the household of princess Šu-Eštar, a rural estate most probably very similar to the one belonging to Simat-Ištaran, whose location cannot be ascertained either[26].

25 In the area of Puzriš-Dagān and Nippur a huge archive of no doubt much more than one thousand tablets, from ancient Irisaĝrig, was also found by looters[27]. The exact position of Irisaĝrig remains unknown as well[28]. The texts found belonged to the archive of governor Urmes, who was closely bound to the royal administration. Finally, it is worth mentioning the archive of Ardaĝu, most probably found by looters at ancient E-Šu-Suen, a rural estate very closely located to Nippur[29].

26 To sum up, more than one hundred years of illicit diggings, and to a very minor extent of official excavations, have brought to light a vast corpus of cuneiform tablets that document the accounting procedures of different types of administration. Thus we have large quantities of texts from private archives (Nippur, Tūram-ilī archive, SI.A-a archive); rural estate archives (Aradĝu archive, Šu-Eštar archive, GARšana); a temple archive (Nippur); provincial archives (Umma, Girsu, Irisaĝrig); and archives from royal institutions (Ur and Puzriš-Dagān).

27 All these texts show in general very similar principles of accounting and administration, partly inherited from earlier periods, and partly fully developed and used by minor and major administrations under the rule of Ur III kings. A thorough description of them is

beyond the scope of the present contribution, but some of the most representative ones will be presented below.

28 Generally, with all due exceptions, administrative texts deal with the movement of assets in a broad sense (persons, animals, objects, workdays, commodities, etc.), or with their specific situation in a given administrative context. Texts thus recorded the incoming (*a*) and outgoing (*b*) of assets to and from an institution or a private household; their movements inside them (*c*); or provided a snapshot (*d*) of their existence in a particular moment and place, and of their relationship with other goods or persons connected to them (e.g. inventories, balanced accounts, lists of workers, etc.). Other documents could be variants of types *b* (e.g. sale documents, loan documents) and *c* (e.g. letter-orders), or in some way of type *d* (e.g. other legal documents). Depending on the kind and size of the administration where the documents were issued, one or other type of texts predominated[30]. A private archive would prevalently keep record of texts of type *a* and *b*, and particularly of the latter in the form of sealed receipts. Institutions with more complex economic interests tended to keep more documents of types *b*, *c* and *d*, and more exceptionally of type *a* (as was the case of Puzriš-Dagān). Large institutions, whose economy was strongly interrelated with the rest of the Ur III state, were prone to keep an ever increasing number of texts of type *c*[31], which also covered a much broader span of time than did small or medium-sized institutions. As said above, the great majority of our texts come from large institutions, i.e. provincial or royal archives, and are therefore chiefly of type *c*. This also means that they kept track of where items were at any one time, repeatedly mentioning them in several different documents. Theoretically, it would be possible to follow the passage of an item over offices, workshops or elsewhere in the institution, through an interconnected chain of documents, from its arrival until its expenditure or final destination.

29 At Puzriš-Dagān, a management and redistribution centre for livestock[32], the delivery of animals was recorded at the central bureau through documents of a varied typology, depending on the organizational stage of the administration. An example of this kind of text would be the following:

> CST 174
> 1 $sila_4$ Ur-mes sagi, 1 máš Zi-kur-ì-lí, 1 $sila_4$ $zabar\text{-}dab_5$, 1 $sila_4$ Árad-ĝu$_{10}$, 2 máš niga, [Lú]-ĝiškim-zi-da, 1 $sila_4$ Ṣi-lu-uš-^{d}Da-gan, 2 $sila_4$ Šeš-Da-da saĝĝa, 1 $sila_4$ Kur-ĝìri-ni-šè, $mu\text{-}ku_x$, $Na\text{-}sa_6$ ì-dab_5, iti ezem-^{d}Nin-a-zu, mu ús-sa Ki-maš^{ki} ba-hul, u_4 1-kam
> 1 lamb (from) Urmes, the cup-bearer; 1 goat (from) Zikur-ilī; 1 lamb (from) the *zabardab*-official; 1 lamb (from) Aradĝu; 2 fattened goats (from) Lu-ĝiškimzida; 1 lamb (from) Ṣilluš-Dagān; 2 lambs (from) Šeš-Dada, the temple administrator; 1 lamb (from) Kur-ĝiriniše. Deliveries. Nasa received them. *Date:* Šulgi 47/v/1.

30 Shortly after their arrival, animals were routed somewhere else within the Puzriš-Dagān organization (for example, to the kitchens), or to their final destination (for example, the cult). In fact, pairs of texts record the receipt of animals and their immediate disbursement, as was the case for those recorded in the above-cited text, expended for cultic purposes by the same official on the same day[33]:

> PDT 1, 415:
> 1 $sila_4$ ^{d}En-líl, $mu\text{-}ku_x$ Ur-mes sagi, 1 $sila_4$ ^{d}Nuska, $mu\text{-}ku_x$ zabar-dab5, 1 máš niga ^{d} En-líl, 1 máš niga ^{d}Nin-líl, $mu\text{-}ku_x$ Lú-giškim-zi-da, 1 $sila_4$ ^{d}En-líl, 1 $sila_4$ ^{d}Nin-líl, $mu\text{-}ku_x$ Šeš-Da-da, 1 $sila_4$ Hur-saĝ-ga-lam-ma, $mu\text{-}ku_x$ Ṣi-lu-uš-^{d}Da-gan, 1 $sila_4$ ^{d}Nanna, $mu\text{-}ku_x$ Kur-ĝìri-ni-šè, $zabar\text{-}dab_5$ maškim, 1 $sila_4$ é-uz-ga, $mu\text{-}ku_x$ Árad-ĝu$_{10}$, A-a-

kal-la maškim, u4 1-kam, ki Na-sa$_6$-ta ba-zi, iti ezem-^{d}Nin-a-zu, mu ús-sa Ki-maš^{ki} ba-hul
1 lamb (for) god Enlil, delivery (from) Urmes, the cup-bearer; 1 lamb (for) god Nuska, delivery (from) the *zabardab*-official; 1 fattened goat (for) god Enlil (and) 1 fattened goat (for) goddess Ninlil, delivery (from) Lu-giškimzida; 1 lamb (for) god Enlil (and) 1 lamb (for) goddess Ninlil, delivery (from) Šeš-Dada; 1 lamb (for) the Hursaĝ-galama, delivery (from) Ṣilluš-Dagān; 1 lamb (for) god Nanna, delivery (from) Kur-ĝiriniše, being the *zabardab*-official the commissioner; 1 lamb (for) the «taboo-house», delivery (from) Aradĝu. Ayakala was the commissioner. Expended by Nasa. *Date:* Šulgi 47/v/1.

31 As Christina Tsouparopoulou has recently shown[34], documents like this one dated to the same month were put altogether into a leather bag ($^{k u š}$ d u $_{10}$ – g a), closed with a cord and sealed with a bulla. At the end of the year, the contents of this and other leather bags were emptied into another container, which was tagged with a label (the so-called *pisaĝduba*-tablet) describing its contents (see an example of these labels from the Umma provincial archives on Fig. 2).

32 The storage of tablets in containers (probably large baskets) identified with labels was widely used in large archives, such as those of Umma, Girsu and Puzriš-Dagān, and affected all kinds of documents. Thus, for example, tablets recording judicial cases tried in Girsu in the course of a year by a specific collegium of judges were all kept in a single container:

ITT 3, 6046:
pisaĝ dub-ba, di til-la ì-ĝál, Árad-^{d}Nanna, sukkal-mah énsi, ĝìri Šu-ì-lí, Lú-diĝir-ra, Lú-^{d}Nin-ĝír-su, di-ku$_5$-bi-me, mu má-gur$_8$-mah ba-dím
Tablet-container: there are concluded cases (inside). (Being) Arad-Nanna grand vizier (and) governor. (Cases) under the responsibility of Šū-ilī, Lu-diĝira, (and) Lu-Ninĝirsu: they were the judges. *Date:* Šu-Suen 8.

33 Tablets from containers were digested into monthly and annual summaries, of which several specimens have survived. There are many examples from Puzriš-Dagān and from the other administrations. Actually, in large institutions, simple records and summary accounts were two levels of recording and archiving that coexisted for very long periods. The summary, an ubiquitous text category of varied typology that involved all kinds of documents, was aimed at supervision, planification and quick consultation. The so-called *Sammelurkunden*, digests of judicial texts, are a good example of summaries issued for consultation[35].

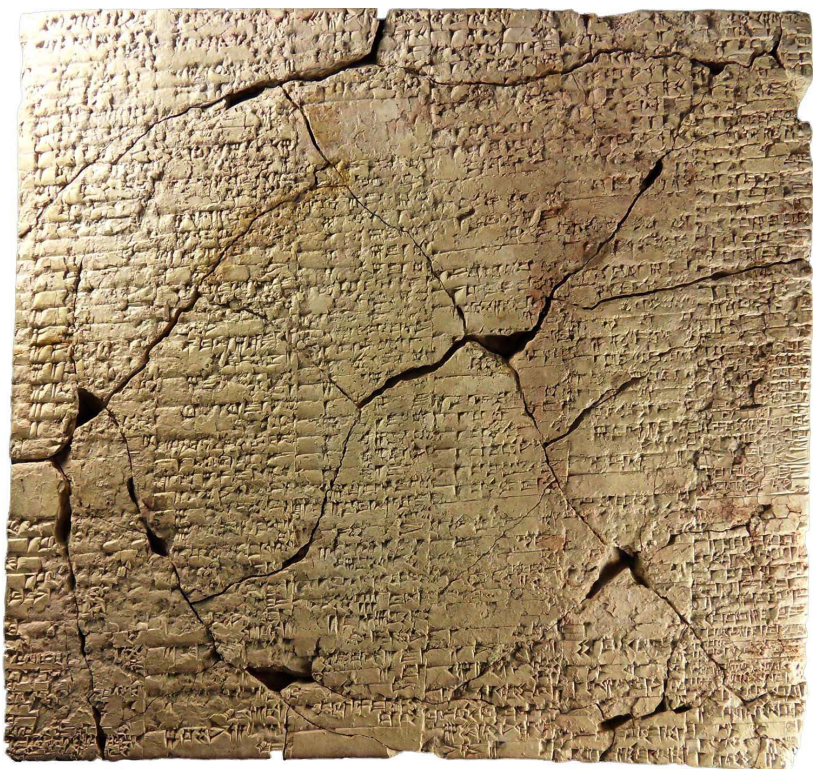
34 With the purpose of an internal control of the materials delivered to a craft workshop at Ur, an exhaustive annual summary was issued by a scribe at the end of the fifteenth regnal year of king Ibbi-Suen. The document, deemed «an accountant's nightmare»[36], was published by Leon Legrain in UET 3, 1498 (see photo on Fig. 5). It is a twelve-column large tablet that incorporated the information provided by some 400 day accounts, excavated by Leonard Woolley, plus an indeterminate number of tablets that have been lost. It was divided into eight sections, each one corresponding to the ateliers of the sculptors, goldsmiths, stone-cutters, carpenters, blacksmiths, leather workers, felters/rope-makers, and reed workers. The process of organizing the information, conveniently described by Marc Van de Mieroop, was based on two main criteria, namely, the section of the workshop to which materials or utensils were delivered, and the name of the deliverer. Sometimes, original documents upon which the summary was based were quoted almost verbatim, and at others the information from small or large groups of texts was

combined. Here follows an excerpt from the section of the goldsmiths showing the correspondence between individual receipts and the summary:

	UET 3, 1498 iv.2-11: ...		
2 3	1 ha-ad kù-babbar ki-lá-bi ⅔^{ša} 3½ gín	→	*UET 3, 660:* 1 ha-ad kù-babbar, ki-lá-bi ⅔^{ša} 3½ gín, 1 ^{giš}tukul ĝiš-ab-ba Me-luh-ha-bi, kù-sig$_{17}$ ĝá-ĝá-dè, ki Amar-^{d}Iškur-ta, A-hu-wa-qar šu ba-ti. *Date.*
4	1 eme giš-gíd-da zabar	→	*UET 3, 428:* 1 ĝiš-gíd-da [(x)], eme zabar [(x)], ù a-lá saĝ-è, kù-sig$_{17}$ ĝá-ĝa-dè, ki ^{d}Nanna-kam-ta, A-hu-wa-qar, šu ba-ti. *Date.*
5	1 ha-ad zabar	→	*UET 3, 428:* 1 ha-ad zabar, kù-babbar ĝá-ĝá-dè, ki Amar-^{d}Iškur-ta, A-hu-wa-qar šu ba-ti. *Date.*
6	5 ne-ge-bu-um zabar	→	*UET 3 650:* 2 ne-ge-bu-um zabar, ĝiš-bi kù-sig$_{17}$ kù-babbar, šub-bu-dè, ki Amar-^{d}Iškur-ta, A-hu-wa-qar šu ba-ti. *Date.*
7	1 ^{giš}tukul giš-ab-ba M[e-luh-ha]	→	*UET 3, 660 (above)*
8	1 ^{giš}tukul si-ig-dum egir-ba kù-sig$_{17}$	→	*UET 3, 600:* 1 ^{giš}tukul si-ig-dum, egir-ba kù-sig$_{17}$ ĝar-ra, saĝ-ba kù-sig$_{17}$ ĝá-ĝá-dè, ki Amar-^{d}Iškur-ta, A-hu-wa-qar šu ba-ti. *Date.*
9	ki Amar-^{d}Iškur		
10	1 $^{5}/_{6}$ ma-na 7 gín uruda ĝír-KIN-šè	→	*UET 3, 537:* <1> $^{5}/_{6}$ ma-na 7 gín uruda, ĝír-KIN-šè, ki DIĜIR-su-ra-bí-ta, A-hu-wa-qar šu ba-ti. *Date.*
11	ki DIĜIR-su-ra-bí-ta ...		

35 1 silver sceptre weighing 362 grams, 1 bronze spear point, 1 bronze sceptre, 1 bronze standard[?], 1 mace made of mangrove wood from Meluhha, 1 mace made of almond wood (set with) gold on its reverse, from Amar-Iškur; 975 grams of copper for (making) harvest knives, from Ilšu-rabi.

Fig. 5 : BM 130460



UET 3, 1498, BDTNS 011803, photo courtesy of Palmiro Notizia

36 A more sophisticated variant of these summaries was the balanced accounts (n i ĝ$_2$ – k a s$_7$), of which several hundreds have been published. They were used to ascertain the fulfilment of production and other obligations by organizations, officials, merchants and other provincial or state employees, and to plan the expectations for the near future. Balanced accounts could deal with labour, arable land, manufactured goods, raw materials, or foodstuff[37]. To compile them, a quite stable system of equivalences was used, according to which products and work were converted into its equivalent value at fixed conversion rates. The most used equivalences were in barley, labour (workdays) and silver, although others were also used (wool, dates, oil, etc.)[38]. Conversions were possible in several directions (for example, workdays could be converted into silver), so that the value of all kinds of assets could be quantified and compared, and when necessary the labour needed to produce them could be estimated. To give an example, in a merchant's balanced account, equivalences in silver were given as follows (excerpt from STA 1, balanced account of merchant Ur-Dumuzida):

...	
121.1.0 zú-lum gur	121 *gur*, 60 *sila* of dates (ca. 36,360 liters),
kù-bi 1 ½ ma-na 3 gín igi-4-ĝál	its (value in) silver: 1½ *mana*, 3^1/$_4$ shekels (ca. 777 grams).
...	
19 gú 13 ma-na siki	19 talents and 13 *mana* of wool (= ca. 576.5 kg),
kù-bi 1 ½ ma-na 6 gín 15 še	its (value in) silver: 1½ *mana*, 6 shekels, 15 grains (ca. 800 g).
...	
1 gú 10 ma-na uruda	1 talent, 10 *mana* of copper (ca. 35 kg),
kù-bi ½ ma-na 8 gín igi-6-ĝál 3 še	its (value in) silver: ½ *mana*, 8^1/$_6$ shekels, 3 grains (ca. 568.2 g).
...	

37 Other examples of equivalences in labour used in balanced accounts are the following[39]:

CT 9, pl. 46 BM 21348
...
39,390 sa gi, šà Nibru^{ki}, 15,904 sa gi, šà Uri$_5^{ki}$ ù Unu^{ki}, guruš-e 10 sa-ta, á-bi 5,530 lá ½ guruš u$_4$ 1-šè
...
39,390 reed bundles (collected) at Nippur, 15,904 reed bundles (collected) at Ur and Uruk, each worker (collecting) 10 bundles (per day), its labour: 5,529½ workdays (lit. «workers for 1 day»).

ITT 2, 621
...
154 éren šà-gu$_4$, 30 lá 1 UN-ga$_6$, u$_4$ 130-šè, á-bi 23,790 guruš u$_4$ 1-šè
15 šidim u$_4$ 75-šè, á-bi 1,125 guruš u$_4$ 1-šè
...
154 *eren*-ox-drivers, 29 menials, (have worked) for 130 days; its labour: 23,790 workdays (lit. «workers for 1 day»).
15 masons (have worked) for 75 days; its labour: 1,125 workays (lit. «workers for 1 day»).

38 The structure of balanced accounts was similar in most cases: the balance carried over from a former balanced account, plus new items or workforce made available during the period under supervision, constituted the debits section; the next section included the expenditures credited to the person to whom the balanced account belonged; then followed the comparison between the preceding totals and the report of a positive or negative balance; and the document usually finished by recording the dates to which the balanced account applied and the name of the person or organization involved.

39 How this process worked will be better understood with the example of balanced accounts issued at Umma to monitor the labour performed by workers throughout the

province[40]. The accounting procedure began with a job performed by a work-gang under the responsibility of a foreman (u g u l a). Once the work had been completed, a tablet sealed by an official from the «Fiscal Office» recording the completion was delivered to the foreman. A sample of this kind of sealed tablet is on Fig. 6, which reads:

> BM 110781:
> 36 ĝuruš u_4 1-šè, ki-su_7 a-šà ^{d}Nin-ur_4-ra-ka gub-ba, 160 ĝuruš u_4 1-šè, ki-su_7 a-šà ^{d} Nin-hur-saĝ-ka gub-ba, 22 ĝuruš u_4 1-šè, ki-su_7 a-<šà> Ur-gar gub-ba, ugula Lugal-kù-ga-ni, kišib Šà-kù-ge, mu Si-ma-núm^{ki} ba-hul. *Seal:* Šà-kù-ge, dub-sar, dumu ^{d} Šára-ĝá
> 36 workers during 1 day (i.e. 36 workdays) were in service at the threshing floor of the field of Ninurra; 160 workers during 1 day (i.e. 160 workdays) were in service at the threshing floor of the field of Ninhursaĝ; 22 workers during 1 day (i.e. 22 workdays) were in service at the threshing floor of the field of Urgar. Foreman: Lugalkugani. Seal of Šakuge. *Date:* Šu-Suen 3. *Seal:* Šakuge, scribe, son of Šaraĝa.

Fig. 6: BM 110781

Receipt tablet of workdays, unpublished, BDTNS 069670

40 By the end of the year, the foreman presented all his sealed receipts documenting the work (counted as workdays) performed under his responsibility. After examining the receipts, a balanced account was issued. These kinds of balanced accounts, of which several specimens are preserved[41], took into consideration the work performed during the previous year, the work expected and the work actually performed during the year just concluded, according to the following scheme:

a) Balance (expressed in workdays) carried over by the foreman from the previous year, summarized as « remainder» (s i – ì – t u m)
b) List of workers at the disposal of the foreman.
At the end of this section: Total (*a+b*) of expected labour performance (expressed in workdays) for the year just concluded, summarized as «debits» (s a ĝ – n í ĝ – g u r_{11} – r a).
c) List of sealed tablets presented by the foreman.
At the end of this section: Total (*c*) of labour (expressed in workdays) credited to the foreman, summarized as «booked out» (z i – g a – à m).
d) Balance of production (expressed in workdays), summarized as «deficit» (l á - ì) or «surplus» (d i r i g) when *a+b* (debit) was respectively greater or lesser than *c* (credits).

e) Colophon:
- Balanced account (n í ĝ – k a s $_7$ a k) of PN (the foreman).
- Period of the balanced account (e.g. from month *x* to month *y* of year *z*).

41 Section *a* was evidently written on the basis of a similar balanced account for the previous year, while section *c* was prepared after the individual receipts presented by the foreman. For the writing of section *b*, detailed inspection lists of workers, some of which have survived, were most probably used.

42 Once issued, these balanced accounts could be sent to other offices to calculate the amounts of wool and barley due to the workers as compensation for the work performed. Likewise, individual receipts presented by the foreman could be sent to other offices to compile other kind of documents. Finally, when all these documents had been used wherever necessary, they were archived in tablet-containers, which were tagged with *pisaĝduba*-tablets[42].

43 A very interesting example of how these containers were classified and managed can be found in the following text recording their delivery:

> Santag 6, 20:
> 1 ^{gi}pisaĝ kišib lá-ì, 1 ^{gi}pisaĝ kišib níĝ-kas$_7$ nu-ak, 1 ^{gi}pisaĝ kišib énsi ma-da, 1 ^{gi}pisaĝ kišib a-gù-a ĝá-ra, kišib Da-da-ga, kišib pisaĝ-dub-ba, mu ús-sa a-rá 3-kam Si-mu-ru-um ba-hul-ta, mu Ur-bí-lum^{ki}-šè, 1 ^{gi}pisaĝ kišib en$_8$ tar, 1 ^{gi}ma-ad-lí-um kišib Lú-diĝir-ra
> 1 reed-container (with) receipt tablets (recording the repayment? of) arrears; 1 reed-container (with) receipt tablets (for) balanced accounts not yet compiled; 1 reed-container (with) receipt tablets of the governors of the provinces; 1 reed-container (with) receipt tablets (already) deducted from the debits (lit. «charged to the account»). (These are containers) received by Dadaga (and) received by the chief bookkeeper, (with documents dated) from «the year after the year Simurrum was destroyed for the third time» (Šulgi 33) to «the year Urbilum (was destroyed)» (Šulgi 45). 1 reed-container (with) receipt tablets (that have to be) investigated. 1 reed-bucket (with) receipt tablets of Lu-diĝira.

44 All these balanced accounts, inspection lists, inventories, receipt tablets, labels and bullae are only a sample of the rich typology of administrative texts that inform us about the accounting procedures in Ur III times. Their potentiality for research on the history of economy and administration, and, in general, for the history of early Mesopotamia, is immense. However, their archival relationships and contents are still imperfectly understood. More than fifty years after the pioneering work of Tom B. Jones and John W. Snyder (SET, 1961), many new and very significant studies on Ur III texts have certainly been written, but an exciting world of research still remains open.

NOTES

***.** Photographs of tablets are published with the kind permission of the Trustees of the British Museum. They have all been taken by the author, except for BM 130460 (UET 3, 1498), taken by Palmiro Notizia. All the abbreviations used are those of BDTNS (see, fn. 2).

1. See Molina, M., «The Corpus of Neo-Sumerian Tablets: an Overview», in Steven J. Garfinkle and J. Cale Johnson (eds.), *The Growth of an Early State in Mesopotamia: Studies in Ur III Administration*. BPOA 5, Madrid, 2008, pp. 19-53. The estimates have not changed much since this publication.

2. Molina, M., *Database of Neo-Sumerian Texts*, http://bdtns.filol.csic.es, 2002–. All statistical data provided in this contribution are based on BDTNS.

3. Kraus, F. R., « Die Istanbuler Tontafelsammlung », *Journal of Cuneiform Studies* 1, 1947, pp. 116f.

4. Hattori, A., *Texts and Impressions: a Holistic Approach to Ur III Cuneiform Tablets from the University of Pennsylvania Expeditions to Nippur*. Ph. D. Diss., University of Pennsylvania, 2002, pp. 49; Tsouparopoulou, Christina, *The Ur III Seals Impressed on Documents from Puzriš-Dagān (Drehem)*. HSAO 16, Heidelberg, 2015, pp. 57f.

5. See Sallaberger, W., « Das Ende des Sumerischen. Tod und Nachleben einer altmesopotamischen Sprache », in Peter Schrijver and Peter-Arnold Mumm (eds.), *Sprachtod und Sprachgeburt*, Bremen, 2004, pp. 109-140; *Id.*, « Sumerian Language Use at Garšana. On Orthography, Grammar, and Akkado-Sumerian Bilingualism », in David I. Owen (ed.), *Garšana Studies*. CUSAS 6, Bethesda, 2011, pp. 337-339. Different views have been expressed by Michalowski, P., «The Life and Death of the Sumerian Language in Comparative Perspective», in Jeremy Black and Gábor Zólyomi (eds.), *Special Volume in Honor of Professor Mamoru Yoshikawa. The Study of Diachronic and Synchronic Variation in Sumerian: Papers Presented at the 6th Meeting of the Sumerian Grammar Discussion Group, Oxford, 17th and 18th September 1999*. ASJ 22, Hiroshima, 2000 (publ. 2005), pp. 177-202; Rubio, G., « Šulgi and the Death of Sumerian », in Piotr Michalowski and Niek C. Veldhuis (eds.), *Approaches to Sumerian Literature: Studies in Honour of Stip (H. L. J. Vanstiphout)*. CM 35, Leiden, 2006, pp. 167-179.

6. See Sallaberger, W., « Ur III-Zeit », *Mesopotamien. Akkade-Zeit und Ur III-Zeit*. Annäherungen 3. OBO 160/3, Freiburg/Göttingen, 1999, pp. 200, 214; *Id.*, « Textformular und Syntax in sumerischen Verwaltungstexten », in Jeremy Black and Gábor Zólyomi (eds.), *Special Volume in Honor of Professor Mamoru Yoshikawa, op. cit.,* pp. 249-278.

7. Prologue of Laws of Ur-Namma, 135-139: see Wilcke, Cl., « Der Kodex Urnamma (CU): Versuch einer Rekonstruktion », in Tzvi Abusch (ed.), *Riches Hidden in Secret Places. Ancient Near Eastern Studies in Memory of Thorkild Jacobsen*, Winona Lake, 2002, pp. 308f.

8. For some deviations, see Gomi, T., « A note on gur, a capacity unit of the Ur III Period », *ZA* 83, 1993, pp. 31-41; *Id.*, « On Various Expressions for 'Difference' in Neo-Sumerian Texts », in Arne A. Ambros and Markus Köhbach (eds.), *Festschrift für Hans Hirsch zum 65. Geburtstag gewidmet von seinen Freunden, Kollegen und Schülern*. WZKM 86, Vienna, 1996, pp. 143-150.

9. Marginal numbers in administrative texts have been recently identified as an illustration of different computational methods based on the use of positional notations and sexagesimal factors: Ouyang, X. and Proust, Ch., « Place value notations in the Ur III period: Marginal numbers in administrative texts », in Karine Chemla, Agathe Keller and Christine Proust (eds.), *Cultures of Computation and Quantification in the Ancient World*, Springer, forthcoming.

10. See Proust, Ch., « Numerical and Metrological Graphemes: from Cuneiform to Transliteration », *CDLJ* 2009: 1, pp. 5f.

11. See most recently Cohen, M., *Festivals and Calendars of the Ancient Near East*, Bethesda, 2015.

12. The earliest text dated by year stems nevertheless from the time of Eanatum I (see Sallaberger, W. and Schrakamp, I., « Philological Data for a Historical Chronology of Mesopotamia in the 3rd Millennium », in Walther Sallaberger and Ingo Schrakamp (eds.), ARCANE 3, Turnhout, 2015, p. 35).

13. Eidem, J., *The Shemshāra Archives 2. The Administrative Texts*, Copenhagen, 1992, p. 13 fn. 6.

14. See Hilgert, M., *Cuneiform Texts from the Ur III Period in the Oriental Institute. 2: Drehem Administrative Documents from the Reign of Amar-Suena*. OIP 121, Chicago, 2003, pp. 19f. Other examples are given by Sallaberger, W., « Ur III-Zeit », *op. cit.*, p. 232.

15. Sallaberger, W., « Ur III-Zeit », *op. cit.,* p. 245.

16. See Molina, M., «The Corpus of Neo-Sumerian Tablets: an Overview », *op. cit.,* pp. 52f. Information updated as of November 2015.

17. See Widell, M., *The Administrative and Economic Ur III Texts from the City of Ur*, Piscataway, 2003, pp. 91-101, with previous literature.

18. Zettler, R. L., « Administration of the Temple of Inanna at Nippur under the Third Dynasty of Ur: Archaeological and Documentary Evidence », in McGuire Gibson and Ronald D. Biggs (eds.), *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East*, SAOC 46, 2nd ed., Chicago, 1991, p. 105.

19. Zettler, R. L., *The Ur III Temple of Inanna at Nippur: The Operation and Organization of Urban Religious Institutions in Mesopotamia in the Late Third Millennium B.C.* BBVO 11, Berlin, 1992, p. 72.

20. Jones, T. B., « Sumerian Administrative Documents », in Stephen J. Lieberman (ed.), *Sumerological Studies in Honor of Thorkild Jacobsen on his Seventieth Birthday*. AS 20, Chicago/London, 1975, pp. 43f.

21. See Paoletti, P., *Der König und sein Kreis. Das staatliche Schatzarchiv der III. Dynastie von Ur*. BPOA 10, Madrid, 2012.

22. Al-Mutawalli, N., « Administrative Cuneiform Texts from Umma in the Iraq Museum. Excavation of Shara Temple », *Sumer* 55, 2010, pp. 45-86; AI-Mutawalli, N. and Ali Ubeid Shalkham, «From the Archive of DI.KU$_5$-mīšar: Excavation of Drehem (Ancient Puzriš-^{d}Dagan) », *Sumer* 59, 2014, pp. 93-112.

23. Stone, E. C., « Patterns of Looting in Southern Iraq », *Antiquity* 82, 2008, pp. 125-138; *Id*., «An Update on the Looting of Archaeological Sites in Iraq », in Jesse Casana (ed.), *The Cultural Heritage Crisis in the Middle East*. NEA 78/3, Boston, 2015, pp. 178-186.

24. See Molina, M., and Steinkeller, P., « New Data on GARšana and the Border Zone between Umma and Girsu/Lagaš », in Gonzalo Rubio, Lluis Feliu and Fumi Karahashi (eds.), *The First Ninety Years: A Sumerian Celebration in Honor of Miguel Civil. SANER* 12, Berlin/Boston, 2016, in press, for its location at the eastern area of the Umma province, not faraway from Girsu, with previous literature (notably the different views expressed in former publications by Wolfgang Heimpel and Piotr Steinkeller).

25. The archive was published in an exemplary way by Owen, D. I., and Rudolf H. M., *The Garšana Archives*. CUSAS 3, Bethesda, 2007.

26. Some of these texts were published by Shayma'a Salah, « New Cuneiform Texts from the Third Dynasty of Ur in the Iraq Museum » [in Arabic], *Sumer* 55, 2010, pp. 133-152; others were published by Owen, D. I. *Cuneiform Texts Primarily from Iri-Saĝrig/Āl-Šarrākī and the History of the Ur III Period. 2. Catalogue and Texts*. Nisaba 15/2, Bethesda, 2013; and others are still unpublished and kept in the Iraq Museum.

27. The tablets from Irisaĝrig have been published by Owen, D., *Cuneiform Texts Primarily from Iri-Saĝrig, op. cit*.

28. See Molina, M., « On the Location of Irisaĝrig », in Steven J. Garfinkle and Manuel Molina (eds.), *From the 21st Century BC to the 21st Century AD. Proceedings of the International Conference on Neo-Sumerian Studies Held in Madrid, July 22-24, 2010*, Winona Lake, 2013, pp. 59-87.

29. Most of the tablets from this archive will be published by Studevent-Hickman, B. *Ur III Texts from the Vicinity of Nippur Belonging to the Archive of Aradmu*, JCS SS, in press.

30. See Steinkeller, P., « Archival Practices at Babylonia in the Third Millennium », in Maria Brosius (ed.), *Ancient Archives and Archival Traditions: Concepts of Record-Keeping in the Ancient World*, Oxford, 2003, pp. 37-39.

31. Cf. for example the statistical analysis for Puzriš-Dagān texts presented by Hilgert, M., *Cuneiform Texts from the Ur III Period, op. cit.,* pp. 14f.

32. For its organization, see Jones, T. B., and Snyder, J. W., *Sumerian Economic Texts from the Third Ur Dynasty. A Catalogue and Discussion of Documents from Various Collections*, Minneapolis, 1961, pp. 212-238; Maeda, T., « Bringing (mu-túm) Livestock and the Puzurish-Dagan Organization in the

Ur III Dynasty », *ASJ* 11, 1989, pp. 69-111; Sigrist, M., *Drehem*, Bethesda, 1992: Sallaberger, W., « Ur III-Zeit », *op. cit*, pp. 260 f. ; Tsouparopoulou Ch., « A Reconstruction of the Puzris-Dagan Central Livestock Agency », *CDLJ* 2013: 2, 15 pp., with previous literature. .

33. Jones, T. B., and Snyder, J. W., *Sumerian Economic Texts, op. cit,* pp. 215f.

34. Tsouparopoulou, Ch., «'Counter-archaeology': Putting the Ur III Drehem Archives Back to the Ground », in Y. Heffron, A. B. Stone and M. J. Worthington (eds.), *At the Dawn of History: Ancient Near Eastern Studies in Honour of J. Nicholas Postgate*, Winona Lake, in press, who also discusses the different types of bullae and their relationship with the archival procedures.

35. Falkenstein, A., *Die neusumerischen Gerichtsurkunden*. 2, Munich, 1956, pp. 263-393; Molina, M., « From Court Records to *Sammelurkunden*: A New Tablet from Umma and TCL 5, 6047 », in Natalia Koslova, Ekaterina Vizirova and Gábor Zólyomi (eds.), *Studies in Sumerian Language and Literature. Festschrift für Joachim Krecher*. BuB 8, Winona Lake, 2014, pp. 399-421.

36. Van de Mieroop, M., « An Accountant's Nightmare. The Drafting of a Year's Summary », *AfO* 46-47, 1999-2000, pp. 111-129. See also Loding, Darlene, *A Craft Archive from Ur*. Ph. D. Diss., University of Pennsylvania, 1974.

37. See most recently Ouyang, X., *Monetary Role of Silver and its Administration in Mesopotamia during the Ur III Period (c. 2112-2004 BCE): A Case Study of the Umma Province*. BPOA 11, Madrid, 2013, pp. 38-40, with previous literature.

38. See Englund, R. K, « Equivalency Values and the Command Economy of the Ur III Period in Mesopotamia », in John K. Papadopoulos and Gary Urton (eds.), *The Construction of Value in the Ancient World*, Los Angeles, 2012, pp. 427-458.

39. Labour equivalences given in these and other texts (e.g., see below BM 110781) are expressed in workdays, which means that the days recorded on the text were not real days of work but accounting units (« workdays »): 10 guruš u4 1-šè does not mean that «10 workers (worked) for 1 day», but that 10 workdays were performed by *n* workers during *n* days (e.g. 4 four workers during 2.5 days, or 20 workers during 0.5 days).

40. See Steinkeller, P., «Archival Practices at Babylonia in the Third Millennium», *op. cit.*; Englund, R. K., «The Year: 'Nissen returns joyous from a distant island'», *CDLJ* 2003: 1, 18 pp.

41. See Studevent-Hickman, B., *The Organization of Manual Labor in Ur III Babylonia.* Ph. D. Diss., Harvard University, 2006, vol. II, pp. 361-451.

42. All this process has been analysed and described in more detail by Steinkeller, P., « Archival Practices at Babylonia in the Third Millennium », *op. cit*.

ABSTRACTS

The Ur III period (2110-2003 BC) is documented through an imposing corpus of administrative cuneiform tablets. It is estimated that some 120,000 documents, plus an indeterminate number of texts stored in the Iraq Museum, are currently kept in collections all over the world. Unfortunately, most of them are deprived of archaeological context, which makes it difficult to identify their provenance and reconstruct their archival relationships. This contribution provides an overview of the physical features of Ur III texts, their administrative typology, the places and the kinds of archives where they were kept, and some of the administrative procedures followed in large institutions.

La période d'Ur III (2110-2003 av. J.-C.) est documentée par un impressionnant corpus de tablettes administratives écrites en cunéiforme. On estime qu'environ 120 000 documents, plus un nombre indéterminé de textes de l'Iraq Museum, sont actuellement conservés dans des collections du monde entier. Malheureusement, le contexte archéologique de beaucoup de ces documents est inconnu, ce qui rend difficile d'identifier leur provenance et de reconstruire les relations entre les différentes archives. Cette contribution propose un aperçu des caractéristiques matérielles des textes d'Ur III, de leur typologie administrative, de leurs lieux d'origine, des types d'archives dans lesquelles ces documents étaient conservés et de quelques procédures administratives suivies dans les grandes institutions.

Das Periode Ur III (2110-2003 v. Chr.) ist durch ein beeindruckendes Korpus von Verwaltungstäfelchen dokumentiert, die in Keilschrift geschrieben sind. Man schätzt, dass ungefähr 120.000 Dokumente in den Sammlungen der ganzen Welt aufbewahrt werden, zu denen noch eine unbestimmte Zahl von Texten aus dem Irak-Museum kommen. Leider ist der archäologische Kontext vieler dieser Dokumente unbekannt, was es schwer macht, ihre Herkunft zu identifizieren und zu bestimmen, in welcher Beziehung die verschiedenen Archive zueinander stehen. Dieser Beitrag bietet einen Überblick über die materiellen Charakteristika der Texte der Periode Ur III und eine verwaltungstechnische Typologie. Er zeigt ferner, an welchen Orten sie konserviert wurden, und präsentiert einige verwaltungstechnische Verfahren, die in den damaligen großen Institutionen angewandt wurden.

El periodo de Ur III (2110-2003 a.C.) es conocido por su impresionante corpus de tablillas cuneiformes de carácter administrativo. Se calcula que alrededor de 120.000 documentos, más un número indeterminado de textos del Museo de Irak, se conservan actualmente en colecciones de todo el mundo. Lamentablemente, la mayor parte de ellos carecen de contexto arqueológico, circunstancia que complica notablemente la identificación de su procedencia y la reconstrucción de sus relaciones de archivo. En este artículo se ofrece una panorámica de las características físicas de los textos de Ur III, su tipología administrativa, los lugares de procedencia y los tipos de archivo donde se guardaban, así como algunos de los procedimientos administrativos empleados en las grandes instituciones.

INDEX

Palabras claves: Periodo de Ur III, contabilidad, sumerio, archivos, inventarios, balances contables, recibos, tipología, administrativa
Schlüsselwörter: Das Ur III-Zeitalter, Rechnungswesen, sumerisch, Archive, Inventare, Haushaltskonsolidierung, Beleg, verwaltungstechnische Typologie.
Mots-clés: Période d'Ur III, comptabilité, sumérien, archives, inventaires, équilibre des comptes, reçus, typologie administrative
Keywords: Ur III period, accounting, Sumerian, archives, inventories, balanced accounts, receipt tablets, administrative typology

AUTHOR

MANUEL MOLINA

Chercheur au Consejo Superior de Investigaciones Científicas (Madrid)
manuel.molina@csic.es